# Business Requirements Document

# Secondary Market

## Document Control

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## 1. Introduction

### 1.1 Purpose

This document outlines the business requirements for the Secondary Market component of the Emtelaak Platform. This component enables investors to buy and sell property shares after the initial offering is completed, providing liquidity for real estate investments and creating a marketplace for property shares trading.

### 1.2 Scope

The Secondary Market system will handle the following processes:

* Listing property shares for resale
* Bid/ask order book management
* Price discovery and market dynamics
* Transaction processing for secondary trades
* Ownership transfer recording
* Market monitoring and reporting
* Compliance with securities trading regulations

### 1.3 References

* Project Charter (project-charter.docx)
* Development Approach and Tech Stack (development-approach.docx)
* Feature Comparison with Similar Platforms (emtelaak-feature-comparison.docx)
* Secondary Market Flow (Secondary Market flow.pdf)

## 2. Stakeholders

### 2.1 Business Stakeholders

* Executive Sponsors
* Product Owner
* Legal & Compliance Team
* Finance Team

### 2.2 Technical Stakeholders

* Project Manager
* Technical Architect
* Development Team
* QA Team
* Security Team

### 2.3 End Users

* Investors (Buyers and Sellers)
* Property Issuers
* Platform Administrators

## 3. Business Objectives

### 3.1 Primary Objectives

1. Create a liquid secondary market for property shares/tokens
2. Implement transparent price discovery mechanisms
3. Establish secure and compliant transaction processing
4. Provide comprehensive market data and analytics
5. Ensure regulatory compliance for securities trading
6. Enable seamless ownership transfers

### 3.2 Success Criteria

1. Secondary market transaction volume of at least 5% of total shares monthly
2. 100% accuracy in ownership transfer recording
3. Complete audit trail for all secondary transactions
4. Processing of at least 500 concurrent secondary market transactions
5. Average transaction processing time of less than 2 minutes

## 4. Business Requirements

### 4.1 Market Structure Requirements

#### 4.1.1 Market Types

1. **Continuous Trading Market**
   * Continuous matching of buy and sell orders
   * Real-time price discovery
   * Market depth visibility
   * Order book transparency
   * Trading hours definition
2. **Auction-Based Trading**
   * Periodic auction mechanisms
   * Opening and closing auctions
   * Price determination algorithms
   * Auction schedule management
   * Auction result publication
3. **Bulletin Board System**
   * Non-matched listing of buy/sell interests
   * Direct negotiation capabilities
   * Indicative pricing information
   * Contact facilitation between parties
   * Transaction finalization tools

#### 4.1.2 Market Rules

1. **Trading Eligibility**
   * Minimum holding periods before trading
   * Transfer restriction enforcement
   * Regulatory trading limitations
   * Accredited investor restrictions
   * Jurisdictional limitations
2. **Trading Parameters**
   * Price variation limits
   * Minimum/maximum order sizes
   * Trading lot sizes
   * Trading fees and commission structure
   * Settlement timeframes
3. **Market Integrity**
   * Market manipulation prevention
   * Insider trading monitoring
   * Abnormal activity detection
   * Market surveillance tools
   * Circuit breakers and trading halts

### 4.2 Order Management Requirements

#### 4.2.1 Order Types

1. **Basic Order Types**
   * Market orders
   * Limit orders
   * Good-till-canceled orders
   * Day orders
   * Fill-or-kill orders
2. **Advanced Order Types**
   * Stop orders
   * Stop-limit orders
   * Iceberg/reserve orders
   * Trailing stop orders
   * All-or-none orders
3. **Order Modifications**
   * Price modification
   * Quantity modification
   * Order cancellation
   * Order replacement
   * Modification history tracking

#### 4.2.2 Order Book

1. **Order Matching**
   * Price-time priority matching algorithm
   * Pro-rata matching (if applicable)
   * Partial fills handling
   * Fill reporting
   * Unmatched order queuing
2. **Market Depth**
   * Multiple price level visibility
   * Aggregated volume at each price
   * Real-time order book updates
   * Historical order book data
   * Order imbalance indication
3. **Order Validation**
   * Available share/token validation
   * Investor eligibility validation
   * Sufficient funds validation
   * Regulatory compliance validation
   * Risk checks

### 4.3 Transaction Processing Requirements

#### 4.3.1 Trade Execution

1. **Match Confirmation**
   * Execution report generation
   * Trade confirmation to both parties
   * Execution price and quantity recording
   * Time stamp and unique identifier
   * Order status update
2. **Settlement Process**
   * Fund transfer initiation
   * Payment processing
   * Settlement confirmation
   * Failed settlement handling
   * Settlement finality determination
3. **Transaction Fees**
   * Fee calculation (fixed, percentage, tiered)
   * Fee collection method
   * Fee distribution
   * Fee reporting
   * Discount programs (if applicable)

#### 4.3.2 Ownership Transfer

1. **Share Transfer Recording**
   * Ownership registry update
   * Transfer documentation
   * Historical ownership trail
   * Transfer confirmation to both parties
   * New owner rights activation
2. **Transfer Restrictions**
   * Lockup period enforcement
   * Transfer limitation rules
   * Right of first refusal implementation
   * Regulatory transfer restrictions
   * Issuer-specific transfer rules
3. **Corporate Action Impact**
   * Dividend eligibility determination
   * Record date considerations
   * In-flight transfer handling during corporate actions
   * Rights transfer with ownership
   * Voting rights transfer timing

### 4.4 Market Transparency Requirements

#### 4.4.1 Market Data

1. **Price Information**
   * Last traded price
   * Daily high/low
   * Opening/closing prices
   * VWAP (Volume-weighted average price)
   * Historical price charts
2. **Volume Information**
   * Trading volume metrics
   * Volume by time period
   * Cumulative volume
   * Volume by investor type
   * Comparison to primary issuance
3. **Market Statistics**
   * Market liquidity metrics
   * Turnover ratio
   * Bid-ask spread analysis
   * Volatility measures
   * Market sentiment indicators

#### 4.4.2 Property Performance

1. **Valuation Updates**
   * Property valuation changes
   * NAV (Net Asset Value) updates
   * Implied market capitalization
   * Premium/discount to NAV
   * Comparative property valuations
2. **Income Performance**
   * Dividend yield based on market price
   * Income history
   * Projected income
   * Yield comparison across properties
   * Yield trends
3. **Property News**
   * Material information disclosure
   * Property improvement updates
   * Occupancy changes
   * Neighborhood developments
   * Regulatory or zoning changes

### 4.5 Market Monitoring Requirements

#### 4.5.1 Surveillance

1. **Abnormal Trading Detection**
   * Price manipulation detection
   * Unusual volume alerts
   * Pattern recognition for suspicious trading
   * Coordinated trading detection
   * Insider trading monitoring
2. **Compliance Monitoring**
   * Accredited investor verification for transfers
   * Jurisdiction-based trading restrictions
   * AML/KYC for secondary transactions
   * Regulatory reporting triggers
   * Prohibited transaction prevention
3. **Market Quality Monitoring**
   * Liquidity metrics tracking
   * Bid-ask spread monitoring
   * Depth of market analysis
   * Price continuity assessment
   * Market maker performance (if applicable)

#### 4.5.2 Reporting

1. **Regulatory Reporting**
   * Transaction reports for regulators
   * Large transaction notifications
   * Suspicious activity reporting
   * Volume and price statistics
   * Market integrity reports
2. **Investor Reporting**
   * Transaction confirmations
   * Account statements with secondary activity
   * Tax basis information
   * Trading history
   * Market value updates

## 5. Integration Requirements

### 5.1 External System Integrations

1. **Payment Processors**
   * Bank/ACH integration for settlements
   * Credit card processing (if applicable)
   * Digital wallet services
   * Wire transfer services
2. **Regulatory Reporting Systems**
   * Financial regulatory reporting
   * Market data reporting
   * Transaction reporting systems
   * Tax authority reporting
3. **Market Data Services**
   * Comparative real estate pricing data
   * Market trend information
   * Real estate indices
   * Yield comparison data

### 5.2 Internal System Integrations

1. **User Registration and Authentication**
   * Investor verification status
   * Accreditation status
   * Trading eligibility verification
2. **Property Listing and Offering Management**
   * Property information for secondary listings
   * Ownership structure information
   * Transfer restriction data
   * Corporate action notifications
3. **Investment Processing**
   * Ownership records
   * Dividend eligibility determination
   * Tax basis information
   * Original purchase information
4. **Wallet and Transaction System**
   * Balance verification for buyers
   * Fund transfers for settlements
   * Fee collection
   * Transaction receipts

## 6. Non-functional Requirements

### 6.1 Security Requirements

1. **Transaction Security**
   * Secure order processing
   * Encrypted communication for orders
   * Multi-factor authentication for trading
   * Fraud detection for unusual trading patterns
   * Order verification protocols
2. **Data Protection**
   * Trading data encryption
   * Access controls for market data
   * Audit logging of all trading activities
   * Compliance with financial data regulations

### 6.2 Performance Requirements

1. **Response Times**
   * Order placement < 1 second
   * Order book updates < 500 milliseconds
   * Trade execution < 2 seconds
   * Market data retrieval < 1 second
2. **Scalability**
   * Support for 10,000+ listed properties
   * 5,000+ concurrent orders
   * 500+ simultaneous trade executions
   * Real-time market data for 10,000+ concurrent users

### 6.3 Availability Requirements

1. **System Uptime**
   * 99.99% uptime during trading hours
   * Scheduled maintenance only during off-market hours
   * Redundancy for all critical trading components
   * Disaster recovery capabilities

### 6.4 Compliance Requirements

1. **Regulatory Compliance**
   * Compliance with securities trading regulations
   * Alternative trading system requirements (if applicable)
   * Market manipulation prevention
   * Audit trail for all trading activities
   * Record keeping requirements

## 7. User Experience Requirements

### 7.1 Trading Experience

1. **Trading Interface**
   * Intuitive order entry
   * Clear market data presentation
   * Real-time order status updates
   * Visual price charts
   * Mobile-responsive trading capabilities
2. **Decision Support**
   * Property performance data
   * Comparable property trading information
   * Historical price charts
   * Trading volume visualization
   * Market depth visualization

### 7.2 Portfolio Management

1. **Trading History**
   * Comprehensive transaction history
   * Cost basis calculation
   * Realized/unrealized gain/loss tracking
   * Trading performance analytics
   * Tax lot information
2. **Market Monitoring**
   * Watchlist functionality
   * Price alerts
   * Market news integration
   * Portfolio valuation updates
   * Trading opportunity notifications

## 8. Reporting Requirements

### 8.1 Market Analytics

1. **Trading Analytics**
   * Volume trends
   * Price trends
   * Liquidity metrics
   * Trading patterns
   * Investor behavior analysis
2. **Performance Analytics**
   * Secondary market price vs. NAV
   * Price performance by property type
   * Yield comparison across properties
   * Liquidity comparison
   * Trading volume/property correlation

### 8.2 Compliance Reporting

1. **Regulatory Reports**
   * Required regulatory filings
   * Large trader reporting
   * Suspicious activity reports
   * Market manipulation investigation
   * Trading restriction enforcement
2. **Internal Compliance**
   * Transfer restriction adherence
   * Accredited investor verification
   * Jurisdiction compliance
   * Trading limit enforcement
   * Fee collection verification

## 9. Constraints and Assumptions

### 9.1 Constraints

1. Must comply with all relevant securities trading regulations
2. Must enforce property-specific transfer restrictions
3. Must integrate with existing ownership records system
4. Trading hours may be limited based on regulatory requirements
5. Must accommodate various jurisdictional requirements

### 9.2 Assumptions

1. Sufficient trading volume will develop to create market liquidity
2. Investors understand the potentially limited liquidity of real estate securities
3. Property issuers will accept secondary trading of their securities
4. Regulatory framework will remain stable during development
5. Settlement processes can be automated to a significant degree

## 10. Appendices

### 10.1 Glossary

* **NAV**: Net Asset Value
* **VWAP**: Volume-Weighted Average Price
* **AML**: Anti-Money Laundering
* **KYC**: Know Your Customer
* **Bid-Ask Spread**: Difference between highest buy and lowest sell price
* **Market Depth**: Volume of orders at different price levels

### 10.2 Related Documents

* Secondary Market Flow Diagram
* Order Matching Algorithm Specification
* Settlement Process Flow
* Market Surveillance Guidelines
* Trading API Specifications